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Dixie Valley Workshop at the Desert Research Institute
Reno, Nevada
June 12-14, 2002

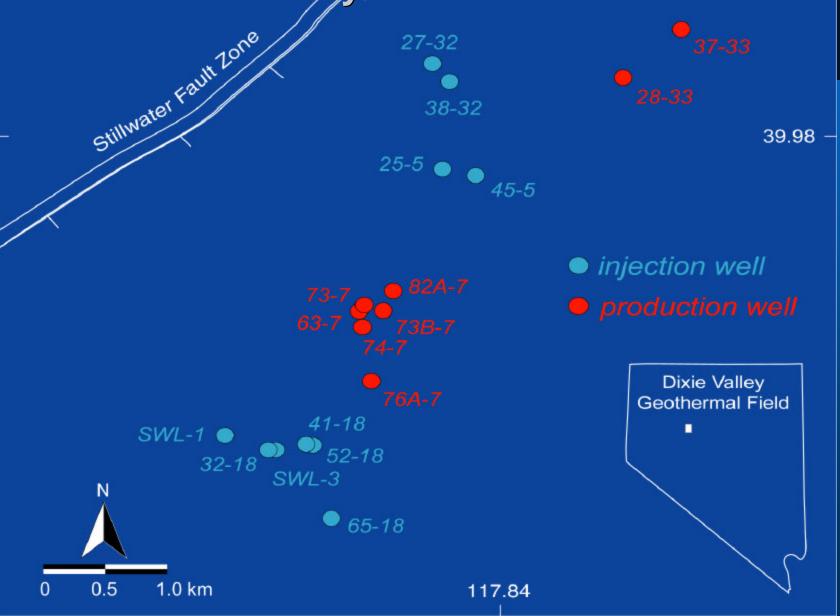
Objectives

- To measure tracer flow patterns between injection and production wells
- To use those tracer data to characterize fluid volumes and flow processes within the reservoir

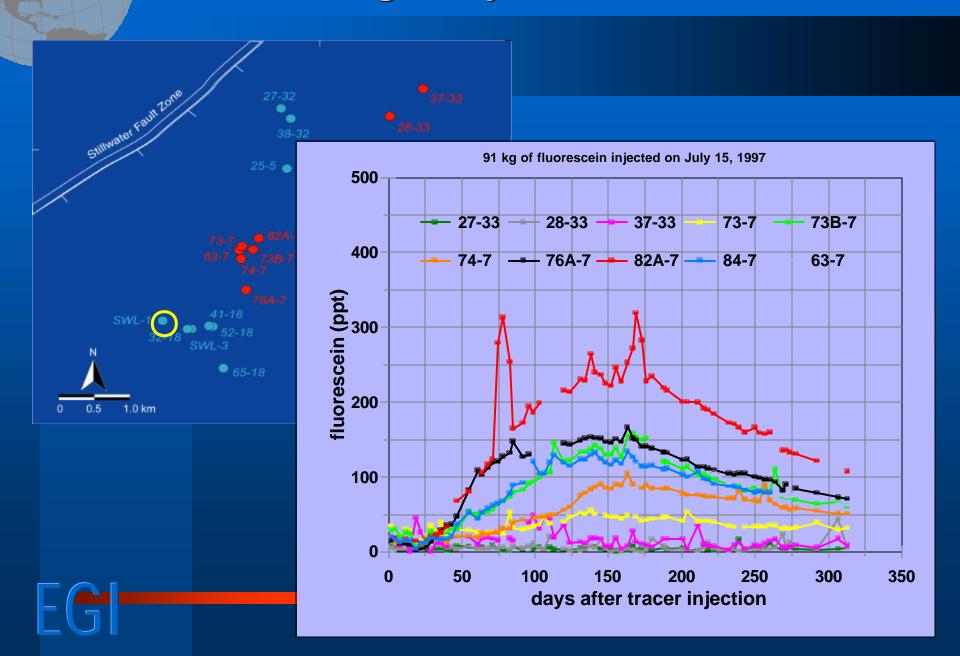




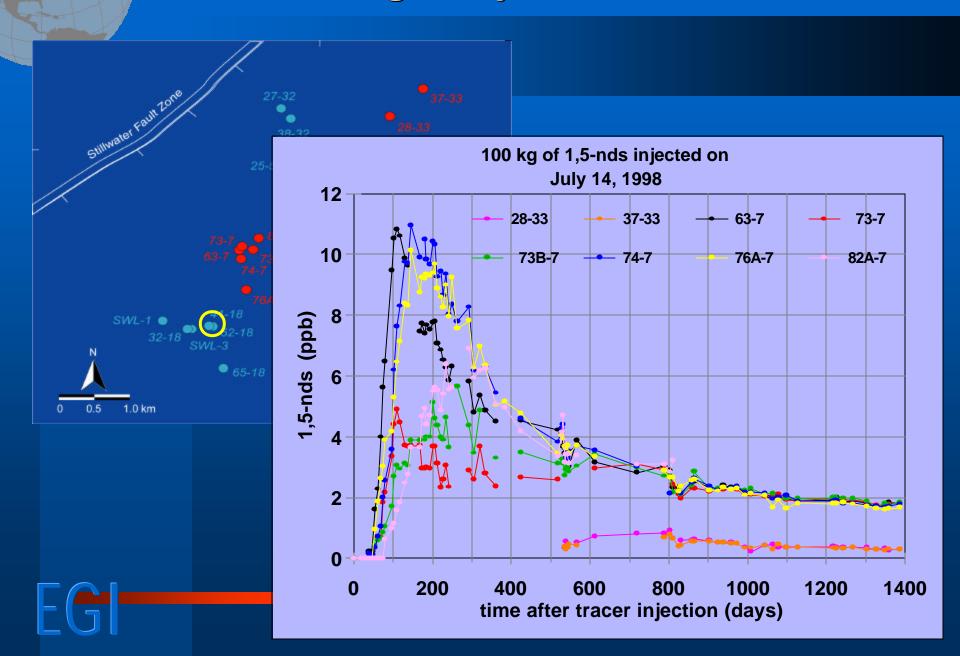
The Dixie Valley Geothermal Reservoir



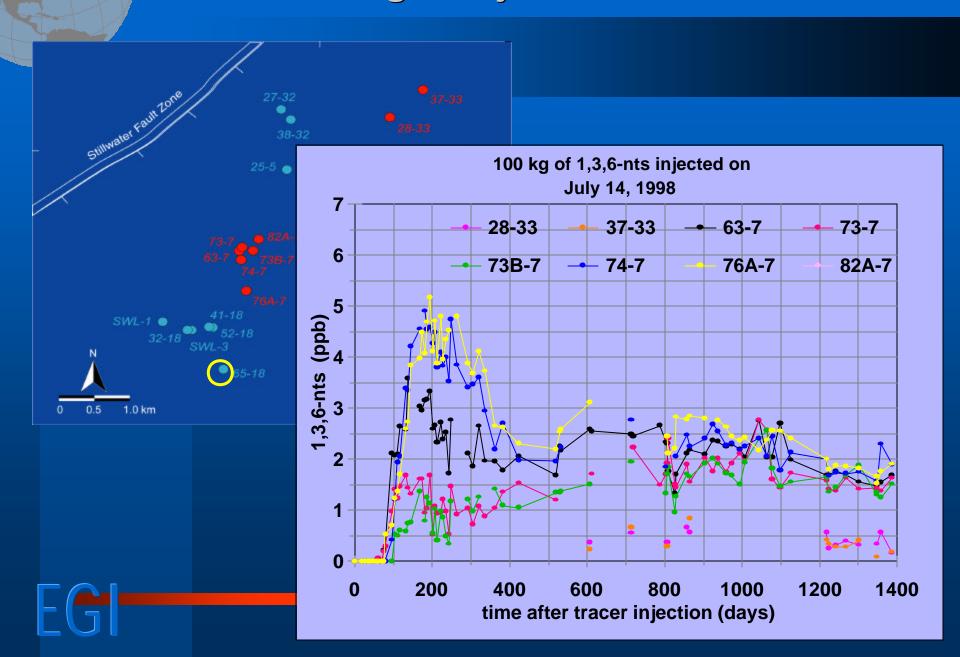
Tracer Testing of Injection Well SWL-1



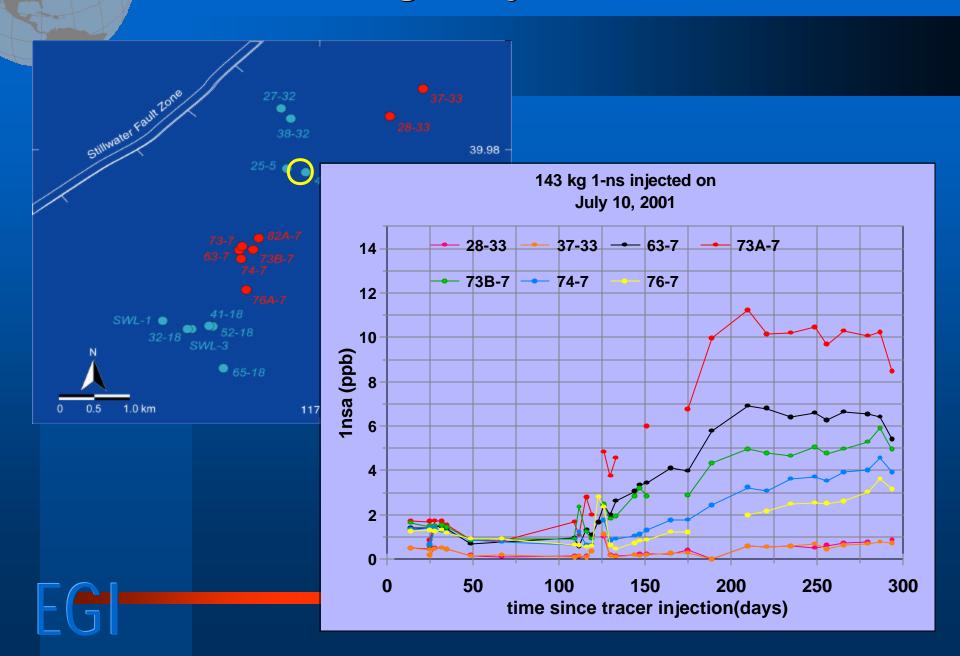
Tracer Testing of Injection Well 41-18



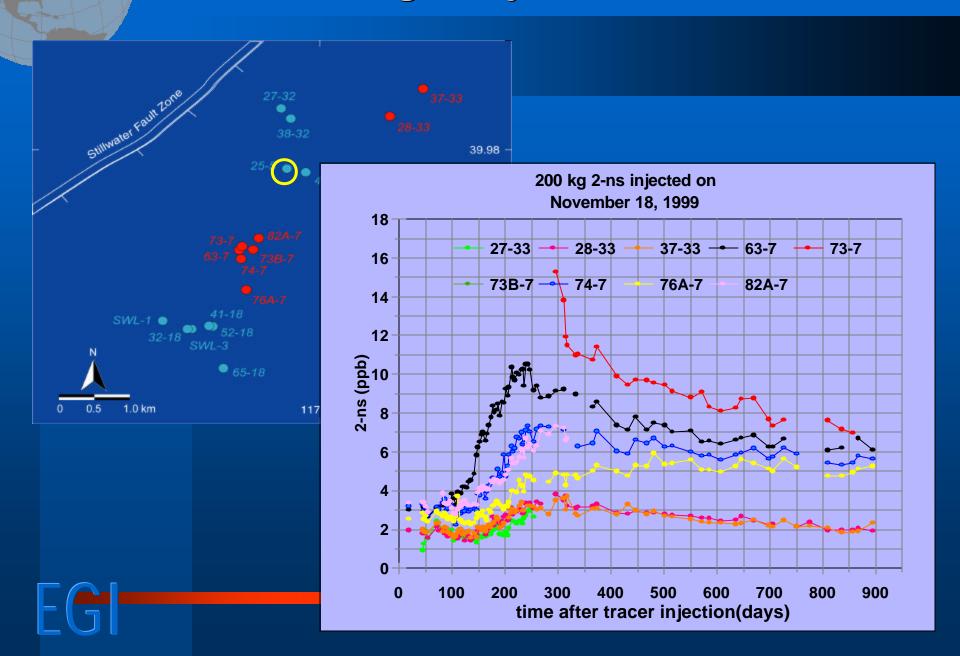
Tracer Testing of Injection Well 65-18



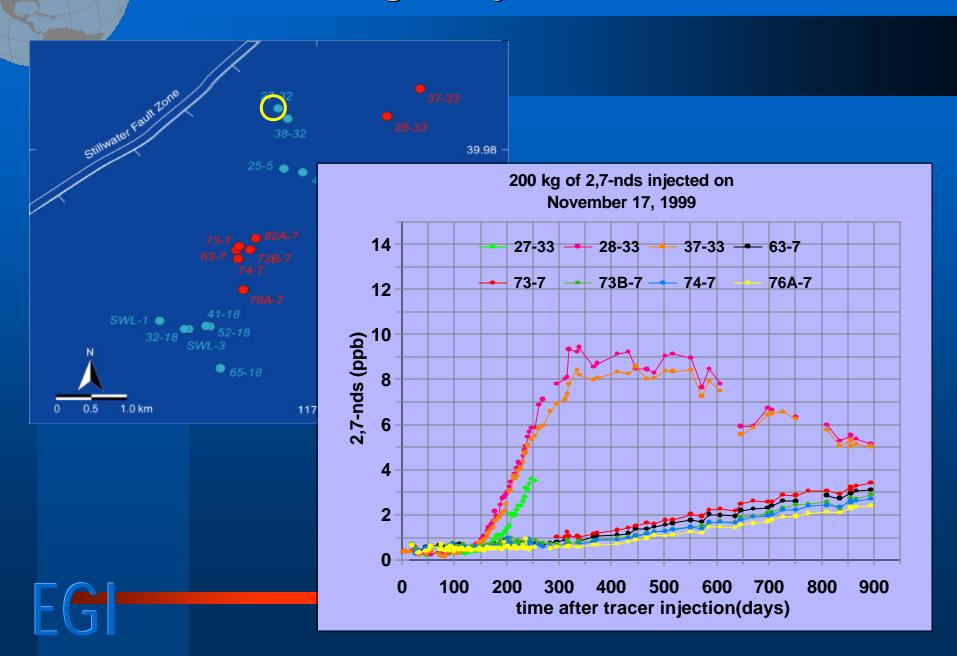
Tracer Testing of Injection Well 45-5



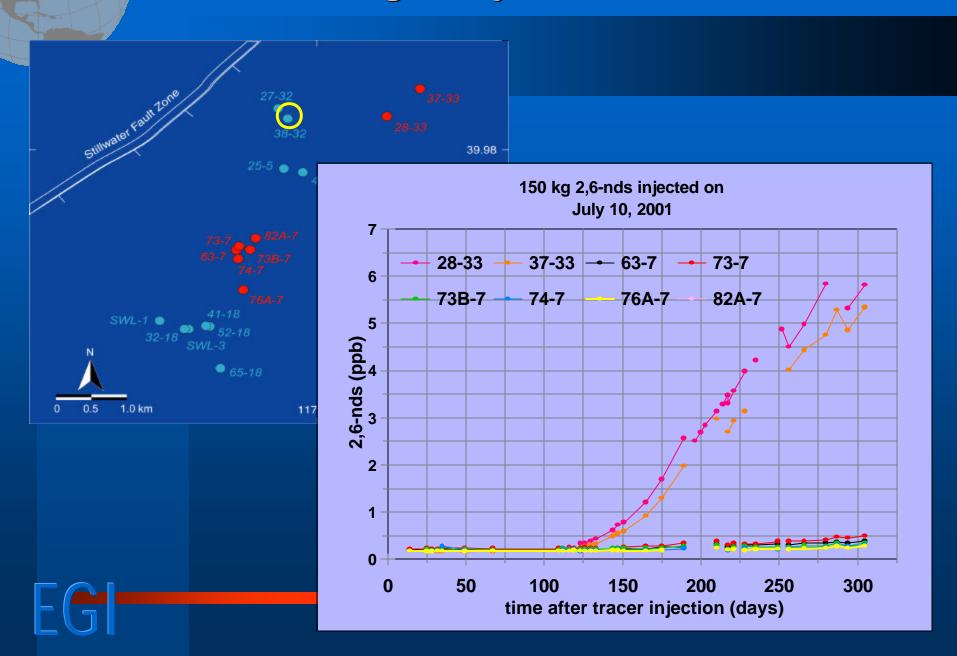
Tracer Testing of Injection Well 25-5



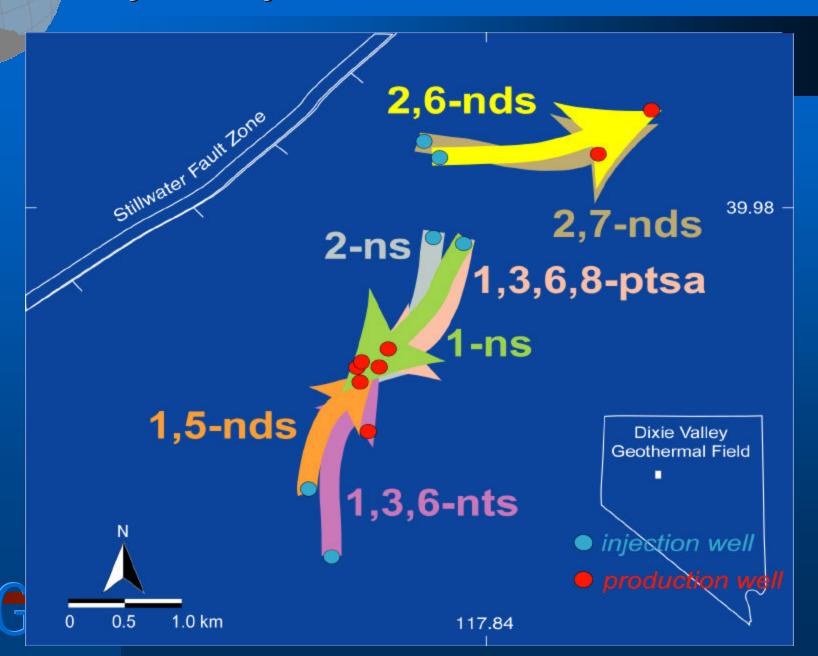
Tracer Testing of Injection Well 27-32



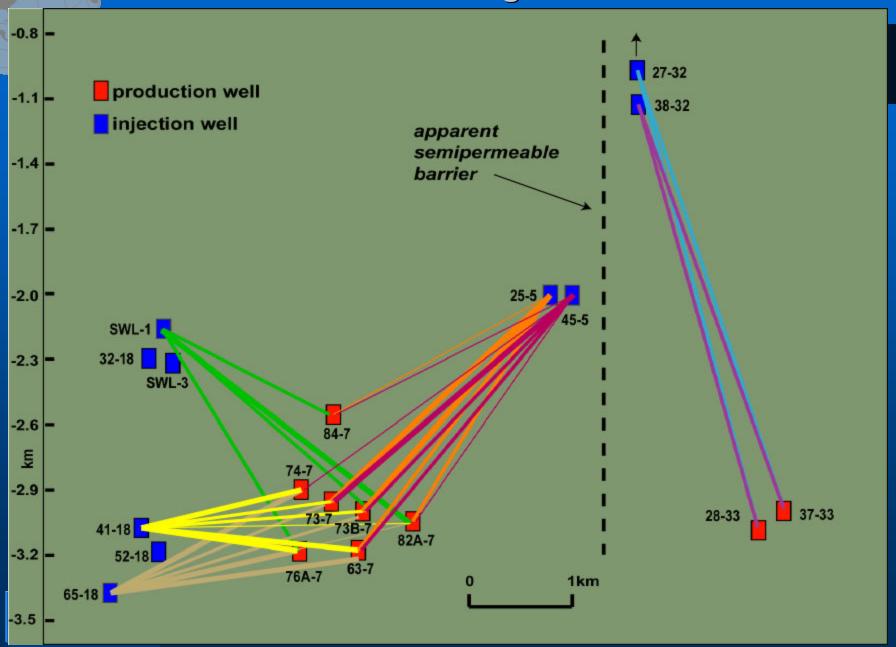
Tracer Testing of Injection Well 38-32



Summary of Polyaromatic Sulfonate Tests at DV



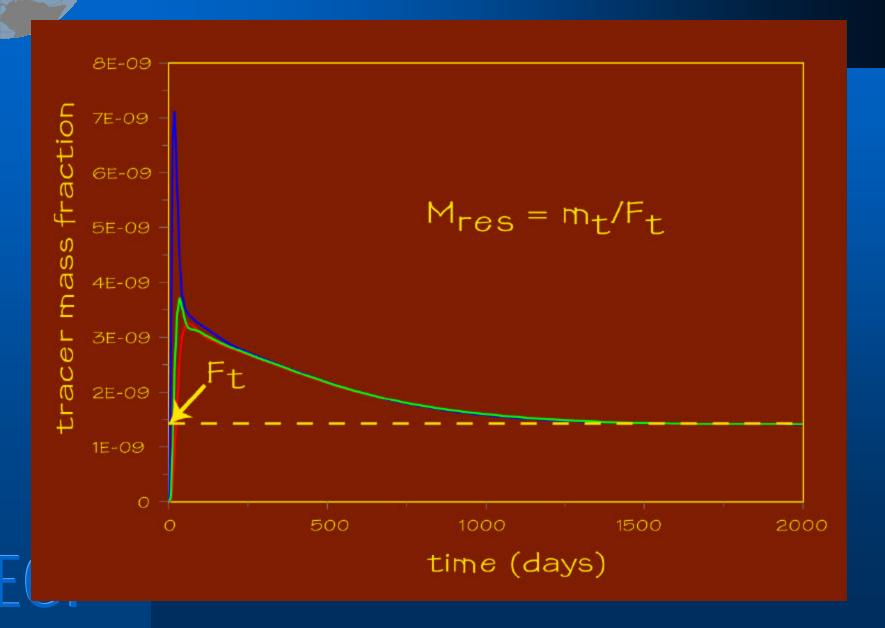
NE/SW Cross Section Showing Tracer Flow Patterns



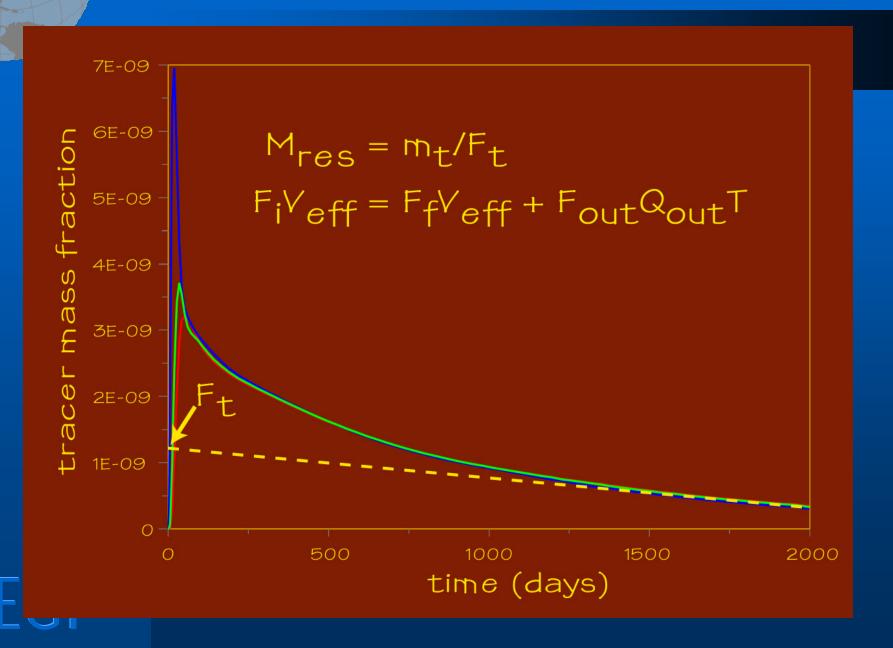
Summary of Tracer Tests: 1996 - 2002

Injection Well Designation	Tracer Destination	Tracer First Arrival (days)
SWL-1	section 7	30
41-18	section 7	47
65-18	section 7	97
25-5	section 7	90, 100
45-5	section 7	90, 115
27-32	section 33	150
38-32	section 33	125

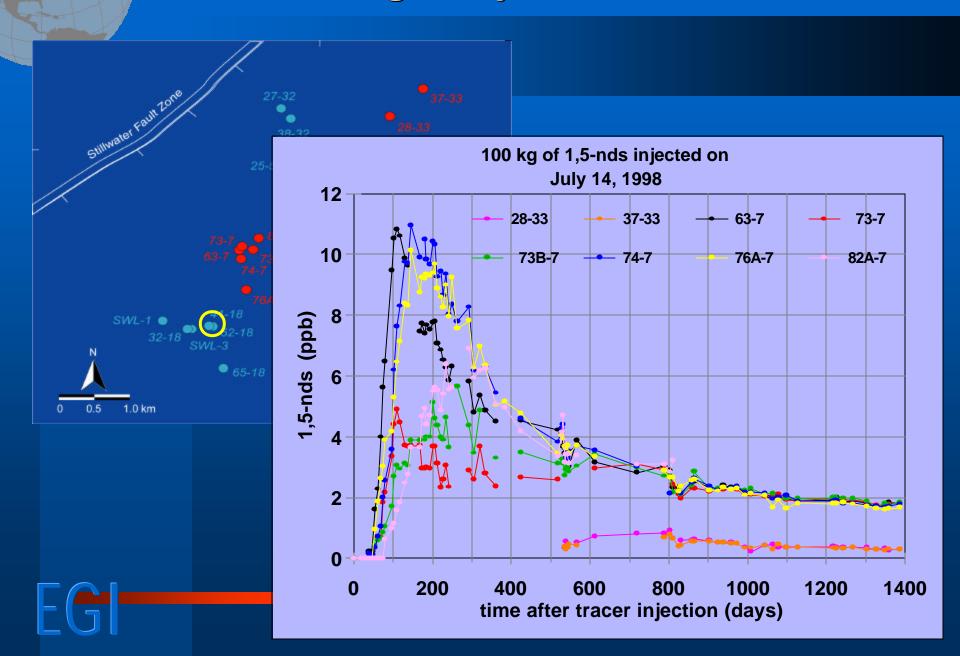
Tracer Recirculation -- Closed System



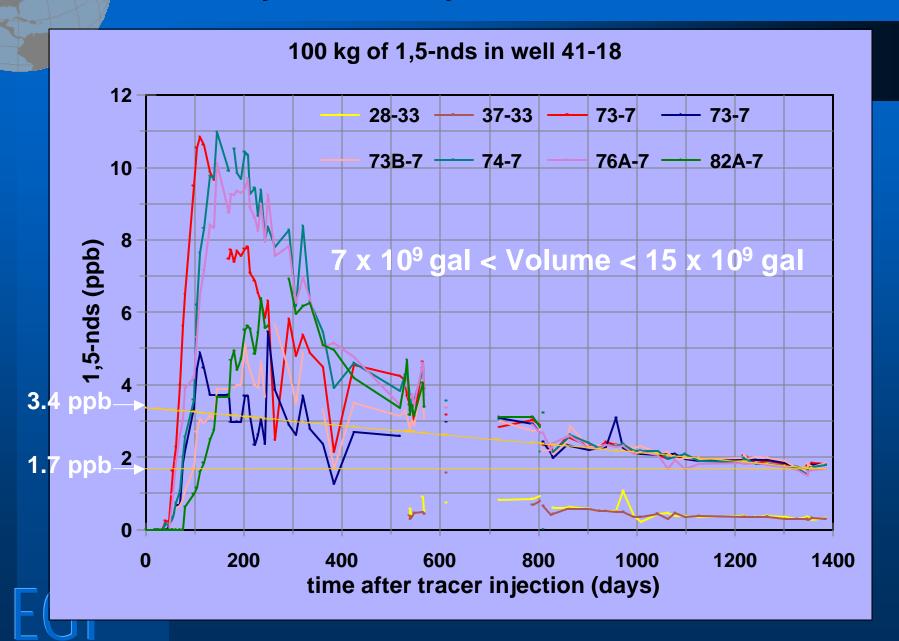
Tracer Recirculation -- Open System



Tracer Testing of Injection Well 41-18



Dixie Valley Preliminary Fluid Volume Estimate



Summary and Recommendations

- A series of tracer tests was recently conducted, tagging all of the major injection regions at the Dixie Valley geothermal field.
- These tracer tests indicate that fluids injected into sections 18 and 5 return to section-7 producers, whereas fluids injected into section 32 return to section-33 producers.
- These tracer data can be used to calibrate flow models and to estimate reservoir recharge and overall fluid volume.
- Reservoir fluid volume estimated to be between 7 and 15 billion gal.

Website

These and other tracer studies are available at:

egi-geothermal.org



Acknowledgements

We thank Oxbow Power and Caithness Energy Corporation for providing access to the Dixie Valley reservoir and for conducting the field tests. Their support has been essential for the successful testing of these candidate tracers. We also acknowledge and appreciate the continued support of the Department of Energy (under grant DE-FG07-00ID13894), without which this project could not have been accomplished.

